

Notice of Allowability

Application No.

10/782,297

Examiner

Ida M. Soward

Applicant(s)

GOLDSTEIN, MICHAEL

Art Unit

2822

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the election filed October 24, 2005.
2. ☒ The allowed claim(s) is/are 1-9 and 23-26.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 02-18-2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

Ida M. Soward
AU 2822

DETAILED ACTION

This Office Action is in response to the election filed October 24, 2005.

Election/Restrictions

Applicant's election without traverse of claims 1-9 and 23-26 in the reply filed on October 24, 2005 is acknowledged.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

1. claims 10-22, non-elected without traverse, have been canceled;
2. "**(Ag O₂)**" has been changed to **(AgO₂)** in claim 25, page 6, line 2; and
3. "**Ag O₂**" has been changed to **AgO₂** on page 5, line 18 of the specification.

Allowable Subject Matter

Claims 1-9 and 23-26 are allowed.

The following is an examiner's statement of reasons for allowance: The prior art of record does not disclose, make obvious, or otherwise suggest the structure of the applicant's together with the other limitations of the independent claims, such as:

in claim 1, "a multiple layer coating disposed on the base, wherein the multiple layer coating includes a first layer of silver (Ag) having a physical thickness of at least approximately one hundred nanometers, a second layer of silicon dioxide (SiO_2) having an optical thickness of a first percentage of a quarter of a wavelength of interest within a band of wavelengths of interest, a third layer of silicon (Si) having an optical thickness of a second percentage of a quarter of the wavelength, and a fourth layer of silicon oxynitride (SiO_xN_y) having an optical thickness of a third percentage of a quarter of the wavelength and a ratio of N_y in the fourth layer of SiO_xN_y includes values within a range from approximately sixty percent N_y to twenty percent N_y "; and

in claim 23, "a multiple layer coating disposed on the base, wherein the multiple layer coating includes a first layer of gold (Au) having a physical thickness of at least approximately one hundred nanometers, a second layer of dielectric material having an optical thickness of a first percentage of a quarter of a wavelength of interest within a band of wavelengths of interest, a third layer of silicon (Si) having an optical thickness of a second percentage of a quarter of the wavelength, and a fourth layer of silicon oxynitride (SiO_xN_y) having an optical thickness of a third percentage of a quarter of the wavelength and a ratio of N_y in

the fourth layer of SiO_xN_y includes values within a range from approximately sixty percent N_y to twenty percent N_y ”.

The dependent claims being further limiting and definite are also allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to further show the state of the art with respect to photonic devices:

Anderson et al. (5,891,556)	Boire et al. (US 6,322,881 B1)
Shirakawa et al. (US 6,672,922 B2)	Takeishi et al. (US 6,800,322 B2)
Veerasamy et al. (US 6,461,731 B1)	Yano et al. (US 6,734,469 B2).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ida M. Soward whose telephone number is 571-272-1845. The examiner can normally be reached on Monday - Thursday 6:30am to 5:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra V. Smith can be reached on 571-272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

IMS

January 8, 2006

John M. Seward
AI 2822